

IN THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1-10 (canceled).

11 (new). A relay server of a service delivery system, in which a session is established between a client terminal and an application server through the relay server, and in which, after the session is established, the application server delivers a service directly to the client terminal via an application session different from the session, the relay server comprising:

a requester that receives a session establishment request, from the client terminal, including service request information of the client terminal;

an authenticator that controls registration information of the client terminal, and authenticates the client terminal based on the service request information and the registration information;

a searcher that searches the application server that delivers the service included in the service request information;

a service inquiry relay that relays the session establishment request, to the searched application server, in order to inquire of the searched application server whether it is possible to deliver the service to the client terminal;

a response relay that receives a response to the inquiry, from the application server, and sends the response to the client terminal; and

a confirmation relay that relays a confirmation request to the application server when the confirmation relay receives the confirmation request from the client terminal according to the response, in order to establish the session between the client terminal and the application

server.

12 (new). The relay server of claim 11, wherein service content and client information are specified based on rules according to data included in the service request information.

13 (new). The relay server of claim 11, further comprising:

a disconnection requester that receives a disconnection request from the client terminal and sends the disconnection request to the application server;

a session controller that measures a duration of the session when the session is disconnected, based on the disconnection request; and

a time biller that creates billing information based on the measured duration.

14 (new). The relay server of claim 11, further comprising:

an application biller that creates billing information based on a request from the application server.

15 (new). The relay server of claim 11, further comprising:

a change requester that receives a session change request including service change information of the client terminal for the established session, from the client terminal, wherein:

the searcher searches an application server that delivers a changed service included in the service change information, in response to the session change request, and

the service inquiry relay relays the session establishment request, to the searched application server, in order to inquire of the searched application server whether it is possible to deliver the changed service to the client terminal.

16 (new). The relay server of claim 11, further comprising:

a transfer requester that receives a session transfer request including service request information of the client terminal for the established session, from the client terminal, wherein:

the searcher searches a second application server that delivers the service included in the service request information, in response to the session transfer request,

the service inquiry relay relays the session transfer request, to the searched second application server, in order to inquire of the searched second application server whether it is possible to deliver the service to the client terminal, and

the response relay receives a response to the inquiry, from the second application server, and sends the response to the client terminal.

17 (new). The relay server of claim 11, wherein:

the searcher searches at least one application server that delivers the service included in the service request information,

the service inquiry relay relays the session establishment request to the searched at least one application server, in order to inquire of the searched at least one application server whether it is possible to deliver the service to the client terminal,

the response relay receives a response to the inquiry, from each of the searched at least one application server, and sends the response to the client terminal, and

when the confirmation relay receives a confirmation request from the client terminal according to the response from each of the searched at least one application server, the confirmation relay relays the confirmation request to the searched at least one application server, in order to establish the session between each of the searched at least one application

server and the client terminal, for one session establishment request.

18 (new). A service control method for a relay server in a service delivery system, in which a session is established between a client terminal and an application server through the relay server, and in which, after the session is established, the application server delivers a service directly to the client terminal via an application session different from the session, the service control method comprising:

receiving a session establishment request, from the client terminal, including service request information of the client terminal, at a requester in the relay server;

authenticating the client terminal based on the service request information and previously-registered client information, at an authenticator in the relay server;

searching an application server that delivers the service included in the service request information, at a searcher in the relay server;

relaying the session establishment request, to the searched application server, in order to inquire of the searched application server whether it is possible to deliver the service to the client terminal, at a service inquiry relay in the relay server;

receiving a response to the inquiry, from the application server, and sending the response to the client terminal, at a response relay in the relay server; and

relaying a confirmation request to the application server when the confirmation relay receives the confirmation request from the client terminal according to the response, in order to establish the session between the client terminal and the application server.

19 (new). A program stored on a computer readable medium that causes a computer to function as the relay server according to claim 11.

20 (new). A service delivery system for a relay server to control an exchange of application data between a client apparatus and an application server, wherein:

the relay server comprises:

a session initiation protocol (SIP) server that controls a session between the client apparatus and the application server using an SIP;

a user authenticator that authenticates the client apparatus;

an application server searcher that searches the application server;

a session controller that monitors establishment and disconnection of the session; and

a billing controller that controls billing on the client apparatus based on monitored information of the session controller;

the client apparatus comprises:

an SIP client that requests establishment and disconnection of the session with the application server using the SIP; and

a client applicationer that exchanges application data with the application server; and

the application server comprises:

an application server SIP client that receives a request of the client apparatus from the SIP server; and

a server applicationer that exchanges application data with the client apparatus.

21 (new). The relay server of claim 11, wherein a response is sent back to the client terminal indicating an error when at least one of the authentication and the search fails.

22 (new). The relay server of claim 11, wherein:

when the searcher searches a plurality of application servers, the service inquiry relay relays the session establishment request, to the searched plurality of application servers, in order to inquire of the searched plurality of application servers whether it is possible to deliver the service to the client terminal; and

when the response relay receives a response to the inquiry, from one of the searched plurality of application servers, the response relay sends this received response to the client terminal and sends a cancel request to the rest of the searched plurality of application servers.

23 (new). The relay server of claim 11, wherein, when delivery of the service from the client terminal directly to the application server is requested before the session is established through the relay server, an error is received from the application server.

24 (new). The relay server of claim 11, further comprising:

a disconnection requester that receives a disconnection request from the application server and sends the disconnection request to the client terminal;

a session controller that measures a duration of the session when the session is disconnected in response to the disconnection request; and

a time biller that creates billing information based on the measured duration of the session.

25 (new). The relay server of claim 11, further comprising:

a change requester that receives, from the application server, a session change request

that includes service change information, for the established session, wherein:

the searcher searches an application server that delivers a changed service included in the service change information, in response to the session change request, and

the service inquiry relay relays the session establishment request, to the searched application server, in order to inquire of the searched application server whether it is possible to deliver the changed service to the client terminal.